

MUR10xxCT Series



Super Fast Recovery Rectifiers

Reverse Voltage: 100 to 600 Volts

Forward Current: 10.0 Ampere

RoHS Device

Halogen Free

Features

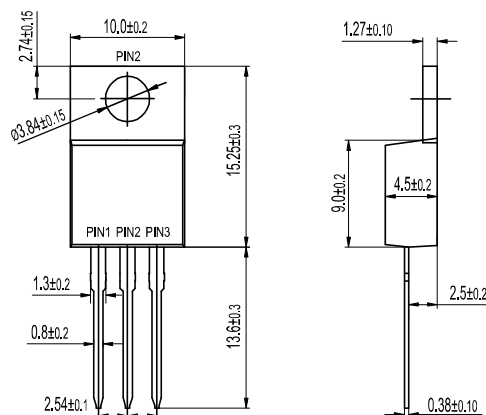
- Glass passivated chip junctions
- Super fast recovery time for switching mode application
- High Forward Surge Capability
- Low Reverse Current
- Lead free in compliance with EU RoHS 2011/65/EU directive

Mechanical data

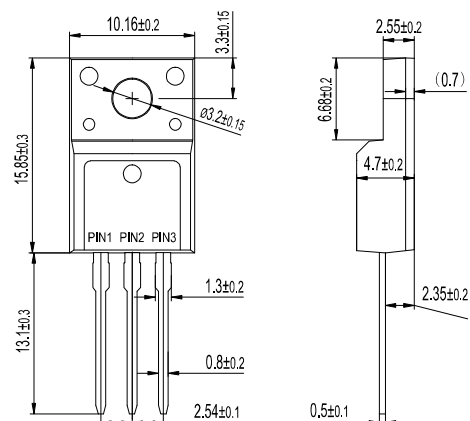
- Circuit figure: Common Cathode
- Leads: Solderable per mil-std-202, Method 208
- Polarity: as marked
- Mounting torque: 5 in-lbs maximum
- Terminals: Puretin plated
- Weight: TO-220AB 1.85 grams
ITO-220AB 1.70 grams
TO-262AB 1.45 grams
TO-263(D²PAK) 1.35 grams

Package outline

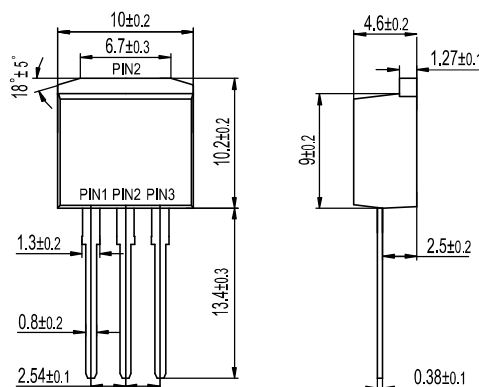
Dimensions in millimeters



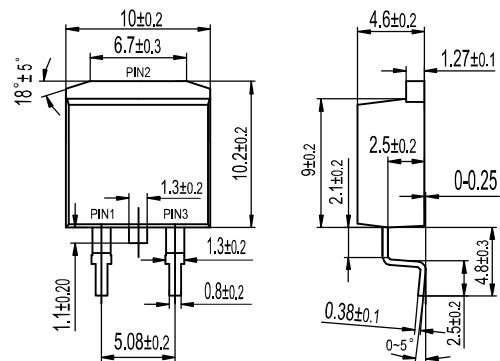
TO-220AB
MUR10xxCT



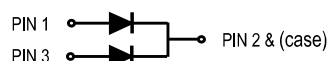
ITO-220AB
MUR10xxFCT



TO-262AB
MUR10xxWCT



TO-263(D²PAK)
MUR10xxBCT



Company reserves the right to improve product design, functions and reliability without notice.

Rev:1.0

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load derate current by 20%.

Parameter	Symbols	MUR 1010CT 1010FCT 1010WCT 1010BCT	MUR 1020CT 1020FCT 1020WCT 1020BCT	MUR 1030CT 1030FCT 1030WCT 1030BCT	MUR 1040CT 1040FCT 1040WCT 1040BCT	MUR 1050CT 1050FCT 1050WCT 1050BCT	MUR 1060CT 1060FCT 1060WCT 1060BCT	Units
Maximum repetitive peak reverse voltage	V _{RRM}	100	200	300	400	500	600	V
Maximum RMS voltage	V _{RMS}	70	140	210	280	350	420	V
Maximum DC blocking voltage	V _{DC}	100	200	300	400	500	600	V
Maximum average forward rectified current	I _{F(AV)}	10						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	150						A
Max. forward voltage at 10A	V _F	0.98		1.3		1.7		V
Maximum DC reverse current T _a = 25°C at rated DC blocking voltage T _a =125°C	I _R	5 250						μA
TO-220AB ITO-220AB Typical thermal resistance TO-262AB TO-263(D ² PAK)	R _{θJC}	2.5 4.0 2.5 2.5						°C/W
Maximum reverse recovery time (Note 1)	t _{rr}	35						ns
Operating junction temperature range	T _j	-55 ~ +150						°C
Storage temperature range	T _{stg}	-55 ~ +150						°C

Notes: 1. Test conditions I_F = 0.5A, I_R = 1A, I_{rr} = 0.25A.
2. Thermal resistance from junction to case.

Rating and Characteristic Curves

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

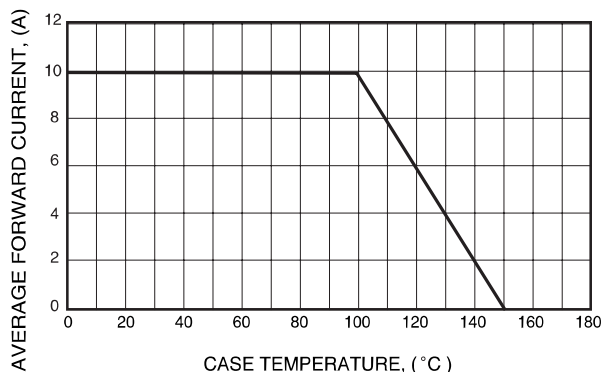


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

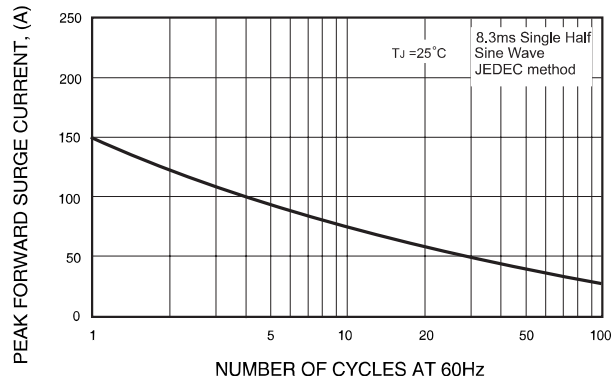


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

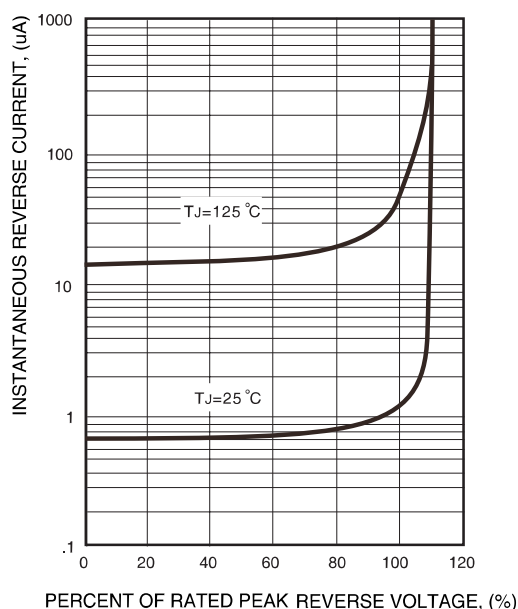


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

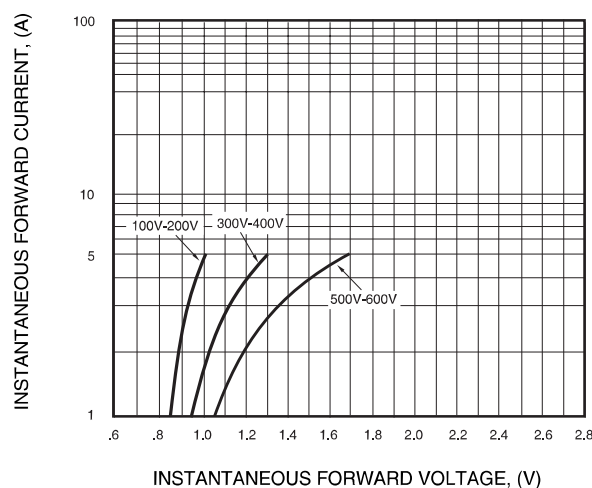
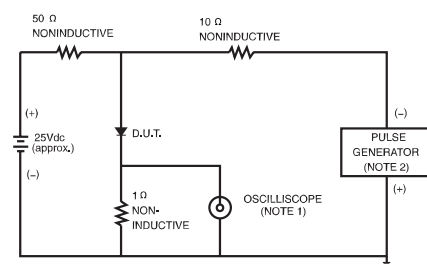
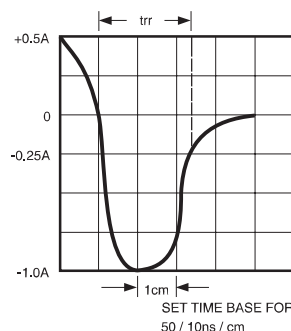


FIG.5- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS

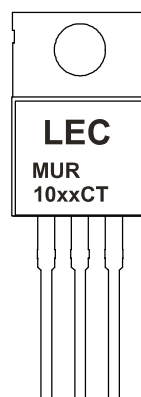


NOTES: 1. Rise Time = 7ns max., Input Impedance = 1 megohm, 22pF.
2. Rise Time = 10ns max., Source Impedance = 50 ohms.



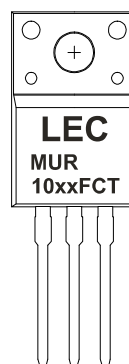
Standard Packaging

Case Type	TUBE PACK	
	TUBE (pcs)	BOX (pcs)
TO-220AB	50	1,000



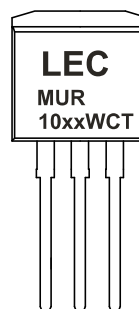
Standard Packaging

Case Type	TUBE PACK	
	TUBE (pcs)	BOX (pcs)
ITO-220AB	50	1,000



Standard Packaging

Case Type	TUBE PACK	
	TUBE (pcs)	BOX (pcs)
TO-262AB	100	2,000



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
TO-263/D2PAK	800	13

